years PFS was 79% and 40%, respectively. Median time to progression and median OS were 18 months and 24 months, respectively. Local control was 93% at 1 year and 64% at 2 years. Local progression occurred in 4 metastases (14%). Overall, acute toxicity occurred in 18% (4/22) of patients; two patients experienced grade 2 pneumonitis. Grade 1-2 late toxicity occurred in 50% of patients. No grade≥3 toxicities were recorded.
Conclusions: Local treatment is a feasible and well-tolerated treatment for oligometastatic NSCLC patients. Ablative RT has a potential role in the local control of the lung metastases and in the management of well-selectedstage IV NSCLC patients in increasing quality of life and survival.

EP-1182
FDG-PET does not predict outcome for early stage non-small-cell lung cancer after sterotactic body radiotherapy
S. Saldi[1], F. Arcidiacono[1], R. Bellavita[2], N. Baffa[3], L. Falcinelli[2], G. Montesi[1], E. Arena[1], M. Porcari[3], F. Paglione[2], V. Bini[4], C. Aristei[1]
[1]*University of Perugia, Department of Radiation Oncology, Perugia, Italy*
[2]*Santa Maria della Misericordia Hospital, Department of Radiation Oncology, Perugia, Italy*
[3]*Santa Maria della Misericordia Hospital, Department of Diagnostic Radiology, Perugia, Italy*
[4]*University of Perugia, Internal Medicine Section of internal Medicine and Metabolic and Endocrine Disease, Perugia, Italy*

Purpose/Objective: The aim of this study was investigate whether the standardized uptake value (SUV-max) of tumor from [18F]-fluoro-2-deoxy-glucose positron emission tomography (FDG-PET) was associated with outcome in patients with non-small-cell lung cancer (NSCLC) treated with curative stereotactic body radiotherapy (SBRT).
Materials and Methods: Between January 2006 and January 2014, a total of 46 patients with medically inoperable early stage NSCLC underwent SBRT. 32/46 (69.57%) and 14/46 (30.43%) had stage IA and IB, respectively. The treatment was administred as 40-50 Gy in 5 fractions; the dose was prescribed to the isocenter. Histology was confirmed in 36/46 (78.26%) patients. All received FDG-PET/computed tomography (CT) at the same institution before SBRT, 3-4 months after the end of SBRT and every 4-6 months thereafter. We reviewed the values of the metabolic activity of the lung lesion before and after treatment, expressed as maximum standardized uptake value (SUV-max) before SBRT (SUV-max pre-SBRT), first SUV after SBRT (1st SUV-post-SBRT) and the lowest value of SUV in the longitudinal follow-up (SUV-nadir). The values were then analyzed with Cox proportional hazards regression to assess whether the metabolic activity could has a predictive value in treatment outcome: local failure (LF), mediastinal failure (MF), systemic progression (SP), overall survival (OS) and cancer specific survival (CS).
Results: Median follow-up was 20.5 months (range 4 – 91) for whole group. The median SUVmax pre-SBRT was 7.70 (range,1.4-28.9), median 1st SUV post-SBRT was 3.25 (range 0.0-9), median SUV-nadir was 1.90 (range 0.0-8). Local complete and partial response was observed in 37/46 (80.43%) and 9/46 (19.57%) patients, respectively. Kaplan-Meier three-years LF, MF, SP were 18.7%, 5% and 5%, respectively. Three-years OS and CS were 67.7% and 82.1%, respectively. We have found similar rates of response in terms of complete and partial response, even if the SUVmax before treatment was higher or lower than the median value in our study (7.70). In univariate analysis, SUVmax pre-SBRT, 1st SUV-post-SBRT and SUV-nadir did not predict for LF, MF, SP, OS and CS.
Conclusions: SBRT was an effective treatment for medically inoperable early-stage NSCLC. On the basis of our results PET SUV-max pre-SBRT, 1st SUV-post-SBRT and SUV-nadir did not predict for LF, MF, SP, OS and CS.

Electronic Poster: Clinical track: Breast

EP-1183
Inter- and intra-variability of dynamic FDG-PET data in breast cancer xenografts
K.E. Pitman[1], E. Rusten[1], A. Kristian[1], E. Malinen[1]
[1]*University of Oslo, Physics, Oslo, Norway*

Purpose/Objective: A murine breast cancer xenograft model was employed to evaluate inter- and intra-variability of various parameters derived from dynamic positron emission tomography with [18F]fluorodeoxyglucose as tracer (FDG-PET).
Materials and Methods: 17 female athymic nude foxn1/nu mice with bila-terally implanted triple-negative basal-like ductal carcinoma (MAS98.12) breast cancer xenografts underwent a dynamic PET scan over an hour after injection of ~10 MBq FDG. Inter-animal data were obtained from the entire animal cohort, while intra-animal data were obtained fro-m four mice which received an additional scan after one or two days. Standardised uptake values (SUV_{max}, SUV_{mean} and SUV_{median}) were estimated for all tumours and livers at different time points. Tumour uptake was analysed with Patlak analysis and a full kinetic two-compartment model for estimation of pharmacokinetic parameters. The coefficient of variation (CV) was calculated for all PET-derived metrics.
Results: The CV for SUV_{mean} and SUV_{median} was typically 10-20% for the tumours, depending on the time post injection and group (intra *vs* inter). The CV for SUV_{max} was mostly higher at all time points p.i. The variability in the pharmacokinetic parameters ranged from 23 to almost 150%.
Conclusions: SUV_{mean} and SUV_{median} show less variability than SUV_{max}. Still, pharmacokinetic tumour metrics show much greater variability than the SUV based metrics. However, it is generally not known which of these metrics that best represents cancer aggressiveness and their use may still depend on the research questions addressed.

EP-1184
Hypofractionated simultaneous integrated boost radiotherapy after breast-conserving surgery: 3 years follow-up
I. Linares[1], I. Tovar[1], R. Del Moral[1], M. Zurita[1], R. Guerrero[1], P. Vargas[2], M. Martínez[3], M.A. Gentil[1], C. Prieto[1], J. Expósito[1]
[1]*Hospital Universitario Virgen de las Nieves, Radiation Oncology, Granada, Spain*
[2]*Hospital Torrecárdenas, Radiation Oncology, Almería, Spain*
[3]*Complejo Hospitalario de Jaén, Radiation Oncology, Jaén, Spain*